ABSTRACT OF THE DISCLOSURE

A method for fabricating a semiconductor device comprises the step of depositing an insulation film 32a with a first pressure set in a deposition chamber; the step of gradually decreasing the pressure in the deposition chamber to a second pressure which is lower than the first pressure; and the step of further depositing the insulation film 32b with the second pressure set in the deposition chamber. The insulation film is deposited with the first pressure a little lower than a second pressure set in a deposition chamber, and the insulation film is further deposited with the second pressure lower than the first pressure set in the deposition chamber. Furthermore, the insulation film is not deposited in the state where the pressure in the deposition chamber is extremely low, and an atmosphere in the deposition chamber is unstable. Thus, a semiconductor device having the insulation film with a sufficiently flat surface can be fabricating without using reflow process.